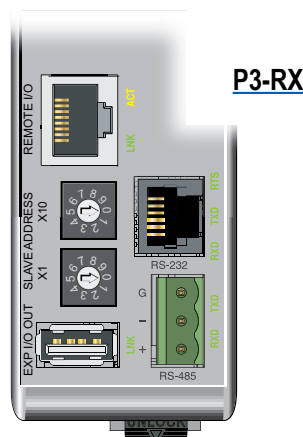


Remote Slave Modules

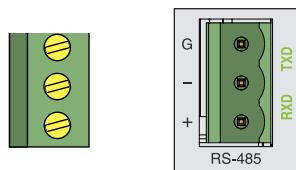
RS-485 Serial Port

Non-isolated RS-485 port connects the **P3-RX** as a Modbus or ASCII master or slave to a peripheral device. (Removable connector included.)

RS-485 Specifications	
Description	Non-isolated RS-485 port connects the P3-RX as a Modbus or ASCII master or slave to a peripheral device. Includes ESD/EFT protection and automatic echo cancellation when transmitter is active.
Data Rates	Selectable, 1200, 2400, 9600, 19200, 33600, 38400, 57600, and 115200 bps.
TXD+/RXD+	RS-485 transceiver high
TXD-/RXD-	RS-485 transceiver low
GND	Logic ground
Input Impedance	19kΩ
Maximum load	50 transceivers, 19kΩ each, 60Ω termination
Output Short Circuit Protection	±250mA, thermal shut-down protection
Electrostatic Discharge Protection	±8kV per IEC1000-4-2
Electrical Fast Transient Protection	±2kV per IEC1000-4-4.
Minimum Differential Output Voltage	1.5 V with 60Ω load
Fail safe inputs	Logic high input state if inputs are unconnected
Maximum Common Mode Voltage	-7.5 V to 12.5 V.
Port Status LED	Green LED is illuminated when active for TXD and RXD
Cable Options	Q8302-1 (cut to length) or Belden 9841 equivalent



P3-RX



Pin #	Signal
G	GND
-	TXD-/RXD-
+	TXD+/RXD+

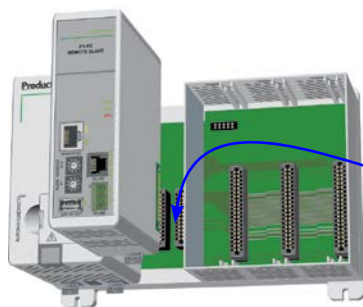
*Removable connector included.

Terminal Block Specifications	
Number of Positions	3
Pitch	5mm
Wire Range	28–12 AWG Solid Conductor 30–12 AWG Stranded Conductor
Screw Driver Width	1/8 inch (3.175 mm) maximum
Screw Size	M2.5
Screw Torque	4.5 lb·in (0.51 N·m)

Installation Procedure

Step One:

Locate the two sockets next to the power supply; the module will be inserted into this location.



Step Two:

Insert **P3-RX** at a 45 angle into the notch located at the top of the base and rotate down until seated.



Step Three:

Snap retaining tab into the locked position.



WARNING: EXPLOSION HAZARD – DO NOT CONNECT OR DISCONNECT CONNECTORS OR OPERATE SWITCHES WHILE CIRCUIT IS LIVE UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS. DO NOT HOT SWAP.

Dimensions and Installation

It is important to review and understand the installation requirements for your Productivity3000® system. Your knowledge of these requirements will help ensure that your system operates within its environmental and electrical limits.

Plan for Safety

This catalog should never be used as a replacement for the product inserts and user manual. Each base, CPU, power supply, I/O module, remote slave, and expansion module comes with a product insert. You can purchase, download for free, or view online the Productivity3000 user manual (P3-USER-M). These documents, along with the software help files, contain important safety information that must be followed.

The system installation should comply with all appropriate electrical codes and standards.

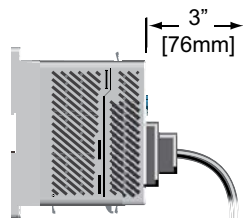
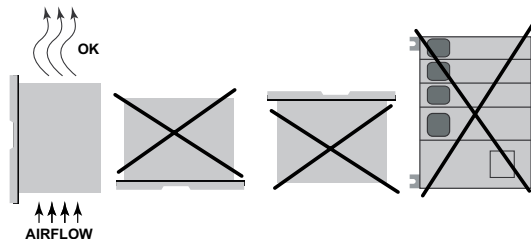
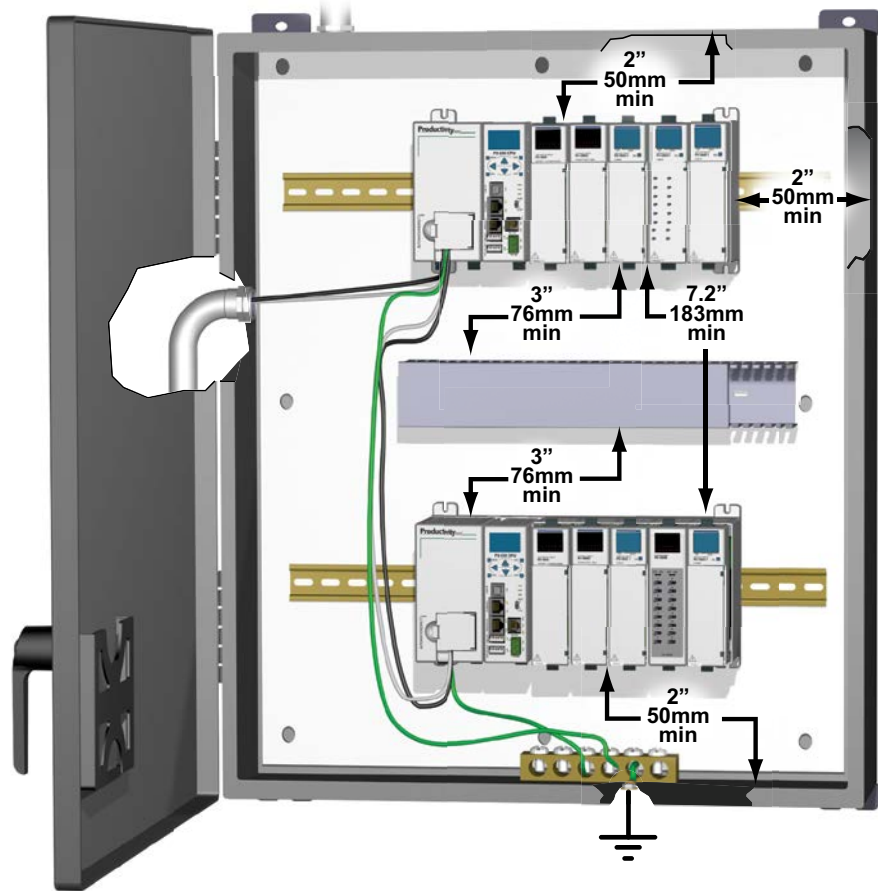
Enclosures

Your selection of a proper enclosure is important to ensure safe and proper operation of your Productivity3000 system. Applications for the Productivity3000 system vary and may require additional hardware considerations. The minimum considerations for enclosures include:

- Conformance to electrical standards
- Protection from the elements in an industrial environment
- Common ground reference
- Maintenance of specified ambient temperature
- Access to the equipment
- Security or restricted access
- Sufficient space for proper installation and maintenance of the equipment

Mounting Position

Mount the bases horizontally, as shown in the illustration, to provide proper ventilation. Do not mount the bases vertically, upside down, or on a flat horizontal surface.



NOTE: Add 3 inches (76 mm) to mounting depth when using ZIPLink cable ZL-CBL40.

Dimensions and Installation

Mounting Clearances

Provide a minimum clearance of 2 inches (50mm) between the bases and all sides of the enclosure. Allow extra door clearance for operator panels and other door mounted items. There should be a minimum of 3 inches (76mm) clearance between the base and any wire duct, and a minimum of 7.2 inches (183mm) from base to base in a multiple base installation.

Grounding

A good common ground reference (earth ground) is essential for proper operation of the Productivity3000® system. One side of all control circuits, power circuits and the ground lead must be properly connected to earth ground by either installing a ground rod in close proximity to the enclosure or by connecting to the incoming power system ground. There must be a single-point ground (i.e. copper bus bar) for all devices in the enclosure that require an earth ground.

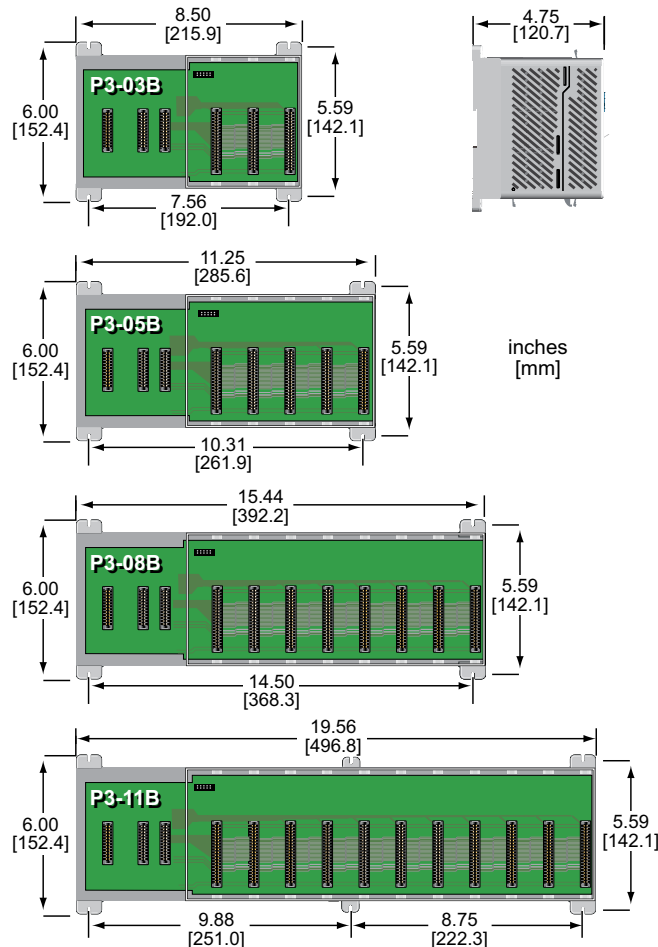
Temperature Considerations

The Productivity3000 system should be installed within the operating temperature specifications as listed in this document. If the temperature deviates above or below the specification, measures such as cooling or heating the enclosure should be taken to maintain the specification.

Power Considerations

The Productivity3000 system is designed to be powered by 110/220 VAC or 24/48 VDC via one of the Productivity3000 power supplies. The Productivity3000 has achieved CE certification without requiring EMF/RFI line noise filters on the AC power supply. Please review the "EU Directives" document, located in the User Manual or at www.automationdirect.com/productivity/p3000, for applications which require CE Compliance.

Base Dimensions



Base Installation

Using Mounting Rails

The Productivity3000® bases can be secured to the cabinet using mounting rails. You should use rails that conform to DIN EN standard 50 022. We offer a complete line of DIN rail, DINnectors and DIN rail mounted apparatus. These rails are approximately 35mm high, with a depth of 7.5 mm. If you mount the base on a rail, you should also consider using end brackets on each side of the base. The end brackets help keep the base from sliding horizontally along the rail. This helps minimize the possibility of accidentally pulling the wiring loose.

If you examine the bottom of the base, you'll notice retaining clips. To secure the base to a DIN rail, place the base onto the rail and gently push up on the retaining clips. The clips lock the base onto the rail.

To remove the base, pull down on the retaining clips, slightly lift up the base, and pull it away from the rail.

